



#6

SEQUENCE LISTING

<110> FARWICK, MIKE
HUTHMACHER, KLAUS
BREHME, JENNIFER
PFEFFERLE, WALTER
BINDER, MICHAEL
GREISSINGER, DIETER
THIERBACH, GEORG

<120> Nucleotide sequences which code for the sahH gene

<130> 211739US0X

<140> 09/919,854

<141> 2001-08-02

<150> DE 100 44 706.6

<151> 2000-09-09

<150> DE 101 09 685.2

<151> 2001-02-28

<150> US 60/294,277

<151> 2001-05-31

<160> 4

<170> PatentIn version 3.1

<210> 1

<211> 1939

<212> DNA

<213> Corynebacterium glutamicum

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tggaagaggc agatgtggaa tatgacctcg aagcttattt agaggccctc aactagccct 180

ccactaaaca gtttcaatca attcgggtgtc cactccaaca tgtaga gtg gtg cgc 235
Val Val Arg
1

gtt aaa aaa gtt ttc cta att ttc att ttc tta aaa gga gct cgc cag 283
Val Lys Lys Val Phe Leu Ile Phe Ile Phe Leu Lys Gly Ala Arg Gln
5 10 15

gac atg gca cag gtt atg gac ttc aag gtt gcc gat ctt tca cta gca 331
Asp Met Ala Gln Val Met Asp Phe Lys Val Ala Asp Leu Ser Leu Ala

| 20 | 25 | 30 | 35 | |
|------------------------------------------------------------------------------------------------------------------------------------|-----|-----|-----|------|
| gag gca gga cgt cac cag att cgt ctt gca gag tat gag atg cca ggt Glu Ala Gly Arg His Gln Ile Arg Leu Ala Glu Tyr Glu Met Pro Gly | 40 | 45 | 50 | 379 |
| ctc atg cag ttg cgc aag gaa ttc gca gac gag cag cct ttg aag ggc Leu Met Gln Leu Arg Lys Glu Phe Ala Asp Glu Gln Pro Leu Lys Gly | 55 | 60 | 65 | 427 |
| gcc cga att gct ggt tct atc cac atg acg gtc cag acc gcc gtg ctt Ala Arg Ile Ala Gly Ser Ile His Met Thr Val Gln Thr Ala Val Leu | 70 | 75 | 80 | 475 |
| att gag acc ctc act gct ttg ggc gct gag gtt cgt tgg gct tcc tgc Ile Glu Thr Leu Thr Ala Leu Gly Ala Glu Val Arg Trp Ala Ser Cys | 85 | 90 | 95 | 523 |
| aac att ttc tcc acc cag gat gag gct gca gcg gct atc gtt gtc ggc Asn Ile Phe Ser Thr Gln Asp Glu Ala Ala Ala Ile Val Val Gly | 100 | 105 | 110 | 571 |
| tcc ggc acc gtc gaa gag cca gct ggt gtt cca gta ttc gcg tgg aag Ser Gly Thr Val Glu Glu Pro Ala Gly Val Pro Val Phe Ala Trp Lys | 120 | 125 | 130 | 619 |
| ggt gag tca ctg gag gag tac tgg tgg tgc atc aac cag atc ttc agc Gly Glu Ser Leu Glu Glu Tyr Trp Trp Cys Ile Asn Gln Ile Phe Ser | 135 | 140 | 145 | 667 |
| tgg ggc gat gag ctg cca aac atg atc ctc gac gac ggc ggt gac gcc Trp Gly Asp Glu Leu Pro Asn Met Ile Leu Asp Asp Gly Gly Asp Ala | 150 | 155 | 160 | 715 |
| acc atg gct gtt att cgc ggt cgc gaa tac gag cag gct ggt ctg gtt Thr Met Ala Val Ile Arg Gly Arg Glu Tyr Glu Gln Ala Gly Leu Val | 165 | 170 | 175 | 763 |
| cca cca gca gag gcc aac gat tcc gat gag tac atc gca ttc ttg ggc Pro Pro Ala Glu Ala Asn Asp Ser Asp Glu Tyr Ile Ala Phe Leu Gly | 180 | 185 | 190 | 811 |
| atg ctg cgt gag gtt ctt gct gca gag cct ggc aag tgg ggc aag atc Met Leu Arg Glu Val Leu Ala Ala Glu Pro Gly Lys Trp Gly Lys Ile | 200 | 205 | 210 | 859 |
| gct gag gcc gtt aag ggt gtc acc gag gaa acc acc acc ggt gtg cac Ala Glu Ala Val Lys Gly Val Thr Glu Glu Thr Thr Thr Gly Val His | 215 | 220 | 225 | 907 |
| cgc ctg tac cac ttc gct gaa gaa ggc gtg ctg cct ttc cca gcg atg Arg Leu Tyr His Phe Ala Glu Glu Gly Val Leu Pro Phe Pro Ala Met | 230 | 235 | 240 | 955 |
| aac gtc aac gac gct gtc acc aag tcc aag ttt gat aac aag tac ggc Asn Val Asn Asp Ala Val Thr Lys Ser Lys Phe Asp Asn Lys Tyr Gly | 245 | 250 | 255 | 1003 |

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| acc cgc cac tcc ctg atc gac ggc atc aac cgc gcc act gac atg ctc Thr Arg His Ser Leu Ile Asp Gly Ile Asn Arg Ala Thr Asp Met Leu 260 265 270 275 | 1051 |
| atg ggc ggc aag aac gtg ctt gtc tgc ggt tac ggc gat gtc ggc aag Met Gly Gly Lys Asn Val Leu Val Cys Gly Tyr Gly Asp Val Gly Lys 280 285 290 | 1099 |
| ggc tgc gct gag gct ttc gac ggc cag ggc gct cgc gtc aag gtc acc Gly Cys Ala Glu Ala Phe Asp Gly Gln Gly Ala Arg Val Lys Val Thr 295 300 305 | 1147 |
| gaa gct gac cca atc aac gct ctt cag gct ctg atg gat ggc tac tct Glu Ala Asp Pro Ile Asn Ala Leu Gln Ala Leu Met Asp Gly Tyr Ser 310 315 320 | 1195 |
| gtg gtc acc gtt gat gag gcc atc gag gac gcc gac atc gtg atc acc Val Val Thr Val Asp Glu Ala Ile Glu Asp Ala Asp Ile Val Ile Thr 325 330 335 | 1243 |
| gcg acc ggc aac aag gac atc att tcc ttc gag cag atg ctc aag atg Ala Thr Gly Asn Lys Asp Ile Ile Ser Phe Glu Gln Met Leu Lys Met 340 345 350 355 | 1291 |
| aag gat cac gct ctg ctg ggc aac atc ggt cac ttt gat aat gag atc Lys Asp His Ala Leu Leu Gly Asn Ile Gly His Phe Asp Asn Glu Ile 360 365 370 | 1339 |
| gat atg cat tcc ctg ttg cac cgc gac gac gtc acc cgc acc acg atc Asp Met His Ser Leu Leu His Arg Asp Asp Val Thr Arg Thr Thr Ile 375 380 385 | 1387 |
| aag cca cag gtc gac gag ttc acc ttc tcc acc ggt cgc tcc atc atc Lys Pro Gln Val Asp Glu Phe Thr Phe Ser Thr Gly Arg Ser Ile Ile 390 395 400 | 1435 |
| gtc ctg tcc gaa ggt cgc ctg ttg aac ctt ggc aac gcc acc gga cac Val Leu Ser Glu Gly Arg Leu Leu Asn Leu Gly Asn Ala Thr Gly His 405 410 415 | 1483 |
| cca tca ttt gtc atg tcc aac tct ttc gcc gat cag acc att gcg cag Pro Ser Phe Val Met Ser Asn Ser Phe Ala Asp Gln Thr Ile Ala Gln 420 425 430 435 | 1531 |
| atc gaa ctg ttc caa aac gaa gga cag tac gag aac gag gtc tac cgt Ile Glu Leu Phe Gln Asn Glu Gly Gln Tyr Glu Asn Glu Val Tyr Arg 440 445 450 | 1579 |
| ctg cct aag gtt ctc gac gaa aag gtg gca cgc atc cac gtt gag gct Leu Pro Lys Val Leu Asp Glu Lys Val Ala Arg Ile His Val Glu Ala 455 460 465 | 1627 |
| ctc ggc ggt cag ctc acc gaa ctg acc aag gag cag gct gag tac atc Leu Gly Gly Gln Leu Thr Glu Leu Thr Lys Glu Gln Ala Glu Tyr Ile 470 475 480 | 1675 |

ggc gtt gac gtt gca ggc cea ttc aag ccg gag cac tac cgc tac 1720
 Gly Val Asp Val Ala Gly Pro Phe Lys Pro Glu His Tyr Arg Tyr
 485 490 495

taatgattgt cagcattgag ggaatcgacg gcgccggcaa aaacaccctg gtttcggcat 1780

taacgcaggt tattgatgca aaagtccttg cattcccacg ttatgaaacc tcgattcacg 1840

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Ala Arg Gln Asp Met Ala Gln Val Met Asp Phe Lys Val Ala Asp Leu
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Ser Leu Ala Glu Ala Gly Arg His Gln Ile Arg Leu Ala Glu Tyr Glu
 35 40 45

Met Pro Gly Leu Met Gln Leu Arg Lys Glu Phe Ala Asp Glu Gln Pro
 50 55 60

Leu Lys Gly Ala Arg Ile Ala Gly Ser Ile His Met Thr Val Gln Thr
 65 70 75 80

Ala Val Leu Ile Glu Thr Leu Thr Ala Leu Gly Ala Glu Val Arg Trp
 85 90 95

Ala Ser Cys Asn Ile Phe Ser Thr Gln Asp Glu Ala Ala Ala Ala Ile
 100 105 110

Val Val Gly Ser Gly Thr Val Glu Glu Pro Ala Gly Val Pro Val Phe
 115 120 125

Ala Trp Lys Gly Glu Ser Leu Glu Glu Tyr Trp Trp Cys Ile Asn Gln
 130 135 140

Ile Phe Ser Trp Gly Asp Glu Leu Pro Asn Met Ile Leu Asp Asp Gly

a!
 Cont

| | | | | | | |
|-----------------------------------------------------------------|-----|-----|--|-----|--|-----|
| 145 | | 150 | | 155 | | 160 |
| Gly Asp Ala Thr Met Ala Val Ile Arg Gly Arg Glu Tyr Glu Gln Ala | | | | | | |
| | 165 | | | 170 | | 175 |
| Gly Leu Val Pro Pro Ala Glu Ala Asn Asp Ser Asp Glu Tyr Ile Ala | | | | | | |
| | 180 | | | 185 | | 190 |
| Phe Leu Gly Met Leu Arg Glu Val Leu Ala Ala Glu Pro Gly Lys Trp | | | | | | |
| | 195 | | | 200 | | 205 |
| Gly Lys Ile Ala Glu Ala Val Lys Gly Val Thr Glu Glu Thr Thr Thr | | | | | | |
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| Gly Val His Arg Leu Tyr His Phe Ala Glu Glu Gly Val Leu Pro Phe | | | | | | |
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| Pro Ala Met Asn Val Asn Asp Ala Val Thr Lys Ser Lys Phe Asp Asn | | | | | | |
| | | 245 | | 250 | | 255 |
| Lys Tyr Gly Thr Arg His Ser Leu Ile Asp Gly Ile Asn Arg Ala Thr | | | | | | |
| | | 260 | | 265 | | 270 |
| Asp Met Leu Met Gly Gly Lys Asn Val Leu Val Cys Gly Tyr Gly Asp | | | | | | |
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| Val Gly Lys Gly Cys Ala Glu Ala Phe Asp Gly Gln Gly Ala Arg Val | | | | | | |
| | 290 | | | 295 | | 300 |
| Lys Val Thr Glu Ala Asp Pro Ile Asn Ala Leu Gln Ala Leu Met Asp | | | | | | |
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| Gly Tyr Ser Val Val Thr Val Asp Glu Ala Ile Glu Asp Ala Asp Ile | | | | | | |
| | | 325 | | 330 | | 335 |
| Val Ile Thr Ala Thr Gly Asn Lys Asp Ile Ile Ser Phe Glu Gln Met | | | | | | |
| | | 340 | | 345 | | 350 |
| Leu Lys Met Lys Asp His Ala Leu Leu Gly Asn Ile Gly His Phe Asp | | | | | | |
| | 355 | | | 360 | | 365 |
| Asn Glu Ile Asp Met His Ser Leu Leu His Arg Asp Asp Val Thr Arg | | | | | | |
| | 370 | | | 375 | | 380 |

al
cmt

Thr Thr Ile Lys Pro Gln Val Asp Glu Phe Thr Phe Ser Thr Gly Arg
385 390 395 400

Ser Ile Ile Val Leu Ser Glu Gly Arg Leu Leu Asn Leu Gly Asn Ala
405 410 415

Thr Gly His Pro Ser Phe Val Met Ser Asn Ser Phe Ala Asp Gln Thr
420 425 430

Ile Ala Gln Ile Glu Leu Phe Gln Asn Glu Gly Gln Tyr Glu Asn Glu
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Val Tyr Arg Leu Pro Lys Val Leu Asp Glu Lys Val Ala Arg Ile His
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Val Glu Ala Leu Gly Gly Gln Leu Thr Glu Leu Thr Lys Glu Gln Ala
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Glu Tyr Ile Gly Val Asp Val Ala Gly Pro Phe Lys Pro Glu His Tyr
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Arg Tyr

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